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MEMORANDUM FOR: Director of Central Intelligence

SUBJECT : MILITARY THOUGHT: "Some Problems of Modern  
Operations", by Lieutenant-General  
I. Tolkonyuk

1. Enclosed is a verbatim translation of an article which appeared in the TOP SECRET Special Collection of Articles of the Journal "Military Thought" ("Voyennaya Mysl") published by the Ministry of Defense, USSR, and distributed down to the level of Army Commander.

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FOR THE DEPUTY DIRECTOR, PLANS:

*Richard Helms*

RICHARD HELMS

Enclosure

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Original: Director of Central Intelligence

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Following is a verbatim translation of an article  
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Some Problems of Modern Operations

by Lieutenant-General I. Tolkonyuk

The problems of conducting military operations when both sides use nuclear weapons have already been under study in our system of operational training for several years.

A good deal is being written on these problems in our military press. However, in practical operational preparation, in the pages of the press and in military-scientific work, these questions are examined very timidly, which is out of keeping with the conditions of nuclear warfare. The matter is not taken beyond the adaptation of old forms and methods to new conditions, although the discussion should be concerned with essentially new categories of military affairs. It seems that the time has come to sacrifice boldly many of the theses from which the basic principles of operational art and tactics have developed.

Military art is confronted with the fact that nuclear/missile weapons bring strategic significance to the fire strike (ognevoy udar). There are many reasons for supposing that it will often be possible to crush the enemy's will to resist only by the strikes of nuclear/missile weapons. This phenomenon, which the nuclear age has brought to mankind, confronts states and their armed forces with a series of the gravest problems in the realm of military activity.

For this reason, our military thinking must work deeply on all the problems connected with the preparation and conduct of modern nuclear warfare. Once we have fully resolved these problems we can discuss forms and methods of conducting military operations. First of all, our nuclear/missile strategy must be worked out most precisely, since it is the strategic nuclear/missile weapon which will be decisive in the achievement of victory. Then, on the basis of the strategic requirements for the accomplishment of strategic tasks, and for the exploitation of the results of the nuclear/missile strategic operations being conducted, it will be necessary to work out the methods and forms of conducting combined operations with the types of armed forces, which are the subject of examination in the field of operational art.

Along with the study of the problems of nuclear/missile operations and the use of weapons of mass destruction in zones of military operation, it is necessary to make a radical reexamination of the

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problems connected with the use of ground troops and naval forces, whose utilization and operations must correspond to the conditions created by the use of weapons of mass destruction.

The resolution of questions of operational art and of questions on the preparation and conduct of modern operations is possible only on the foundation of solutions to the problems indicated above.

The absence of even slight experience in nuclear/missile warfare demands the ability to foresee and to analyze; it demands deep and logical thinking. To glance unerringly into the future, making realistic allowance for the prospects of development of the means of armed combat - this, in our opinion, is the urgent task of our military theory.

In this article it is our aim to raise only certain problems of modern operations and to express our views on these problems briefly.

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Nuclear/Missile Operations. The important strategic missions which, in the previous wars of our times, were accomplished by the conduct of a series of strategic offensive operations by ground, air, and naval forces, and which usually lasted a month or more, can now be accomplished in a very short period of time with the massed use of nuclear/missile weapons. Such an objective as depriving a hostile state or coalition of states of the capability to resist can be achieved, it would seem, in the course of a few hours or, at the outside, within a few days.

Of course, we do not consider that it is possible to capture the enemy's territory with nuclear/missile weapons. For this we will need mobile, well-trained ground troops with modern equipment, transport aviation, airborne troops, and troops supporting their operations.

It is possible, however, to deprive the enemy of the means of conducting war by nuclear/missile weapons alone if one has a sufficient quantity of the latter and knows how to use them to the greatest advantage.

The accumulation of a sufficient quantity of nuclear/missile weapons permits the conduct of so-called nuclear/missile operations for the performance of strategic tasks.

What is meant by strategic nuclear/missile operations?

In our opinion, strategic nuclear/missile operations mean operations conducted by the missile troops at the decision and plan of the Supreme High Command, by the delivery of nuclear strikes aimed at depriving the enemy of the most important means of conducting war, at disrupting his civil and military administration and his national economy, and at breaking his ability and will to offer further resistance.

The execution of such operations will probably be the most important and the most crucial act of a future war. This is why the questions of preparing, supporting, and executing such operations must become ----- [remainder of sentence missing].

To learn how to prepare and conduct such operations is clearly the most vital task of our highest military echelons today; but this is a fairly complicated matter, not tested by experience, and entailing great responsibility. Here we have to deal with a very expensive means of warfare, which is used up in a short period of time, and which may not be available for repeating the operation in the event that the first attempt was unsuccessful.

The preparation of a nuclear/missile strategic operation and the attainment of its goals require first of all a good knowledge of the enemy's territory and of the geographical distribution and points of concentration of: modern means of warfare, primarily nuclear and missile industry; the storage points for nuclear ammunition (boyepripas) and missiles and the bases for their assembly and preparation; the main branches of industry; the launching sites of missile weapons and their control systems; the system of antimissile defense; transportation junctions; the most important points of concentration of manpower; sources of electrical power; the communication centers of state and military control, etc. On the basis of these data it is necessary to select targets in the enemy's territory whose destruction by nuclear strikes would paralyze the country and its military capabilities. It would seem that it is sufficient to destroy the most important points on the enemy's territory in order to place him in a situation in which it is impossible or senseless for him to undertake any measures whatsoever for continuing the war.

In planning such operations we should not scatter our resources, even if we are forced to deal with a powerful coalition of enemy states. It is necessary first of all to put out of commission the main partner

who represents the basic and directing force of the enemy camp; having lost the combat capability of their main partner, the satellite countries will be faced with the impossibility of starting or continuing a war.

To find the enemy's main links (zveno), whose destruction will paralyze his power -- this is the most important task to be performed by a nuclear/missile operation.

Thus, for the preparation and effective conduct of strategic nuclear/missile operations, it is necessary:

- to know in detail and to evaluate correctly the capabilities and the viability of the opposing side;
- to select the most vulnerable targets for a strike; of these, to take only the minimum necessary to accomplish the objective of the operation;
- to determine the amount and yield of nuclear charges needed to ensure the destruction of the targets selected;
- to determine the number of missile installations necessary for the delivery of the nuclear charges to the targets selected, taking into account accuracy (tochnost popadaniya);
- to choose the most suitable time for delivery of the strike;
- to organize control of the missile troops participating in the operation.

In the preparation of the operation, a very important place is occupied by the reconnaissance of the strike targets. An incorrect picture of the enemy, of his vitally important centers, or ignorance of the location of his most important means of warfare, can result in the strike being delivered against secondary targets, which will not achieve the objectives of the operation.

No less important is the proper selection and preparation of the missile launching sites to ensure the greatest effectiveness and convenience in launching. The stockpiling of nuclear charges, their delivery to the launching sites, and their mounting (stykovka) on the missiles represent a large volume of work of primary importance, requiring the expenditure of much time and effort.

Finally, there is the very complex question of organizing the control of the missile troops and of the launching and guidance systems of the missiles.

It is quite obvious that the preparations for a nuclear/missile operation are very complicated and demand well-trained personnel, a great deal of painstaking work, large numbers of qualified people, and the expenditure of colossal material means. However, the results that a successfully performed operation can bring are such that no means or efforts should be spared to achieve them.

The actual execution of such an operation will take a very short time. It appears that it will take from a few hours to a few days. In one instance, if sufficient means are applied, the strike may last a few minutes and will take the form of the launch of a particular series of missiles, in the form of an immense volley (zalp). In another instance, several series of missiles may be launched in the course of a few hours or even a few days, and the situation may then take on the form of a sort of missile duel.

It is quite possible that during the course of the war it will be possible to conduct only one strategic nuclear/missile operation which should determine the outcome of the war. If the enemy is a strong coalition, possessing powerful nuclear/missile weapons, we may land in a situation in which it will be impossible to carry out a subsequent nuclear/missile operation.

In any case, nuclear/missile operations must be carried out simultaneously in all, or at least in several, decisive theaters of military operations.

In presenting this question, we do not think that strategic nuclear/missile operations will have to be conducted with the aim of destroying all the hostile states composing the enemy coalition. This will be neither possible nor necessary. The operations must be directed at the main link of the enemy coalition, at his backbone. Once the enemy's back is broken he can be finished off by other means and methods.

After a strategic nuclear/missile operation has been carried out, it will be imperative to know the results of the strike immediately, to know to what degree the mission has been accomplished and how far the objective of the operation has been attained. Study of the results of a strike and of the degree of damage done to the



enemy in a short time is an important job for the Supreme Command. It is needed so that the methods of carrying out further actions to exploit the results of the operation which has been performed may be determined and final victory may be achieved. To achieve final victory, it will be necessary to conduct offensive operations with ground troops, using mobile large units, airborne troops, naval forces and naval landing forces to crush the enemy troops who have survived or who have retained their combat capability, and to occupy the key positions in enemy territory. It follows, therefore, that nuclear/missile strategic operations will probably be the main link in the overall plan for waging a war. They must be conducted in close conjunction with the above-mentioned operations by ground and airborne troops and naval forces, who, in carrying out their tasks, must take maximum advantage of the effect of nuclear/missile strategic operations.

Modern Offensive Operations. The conduct of nuclear/missile strategic operations----/several words missing/ scales of aggressive operations by the ground troops. No matter what the effect of a nuclear/missile strategic operation may be, final victory can only be won by the occupation of the enemy's territory, or at least of the key positions.

Consequently, in order to attain final victory it is necessary for ground troops to carry out offensive operations. This is explained, first of all, by the fact that far from all the important targets and groupings of troops on the territory of the enemy will be destroyed by the strikes of a nuclear/missile operation, since to neutralize or to destroy everything with sufficient certainty would be practically impossible, and not even desirable. Whole areas, even very important ones, will remain untouched by strikes in these operations.

Even in those areas or in those theaters of military operations where the main targets and groupings of troops will be subjected to overwhelming blows during a nuclear/missile strategic operation, not everything will be destroyed, and it is mainly here that operations by ground troops are needed to exploit the results of the nuclear/missile strategic operation and to achieve final victory over the enemy.

In some theaters of military operations or in one section or another of these theaters and in one or another of the strategic or operational directions, nuclear/missile strategic operations will not

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be carried out, because it will be either impossible or inexpedient. In all such instances, it will be necessary for offensive operations to be carried on by ground troops. These can take the form of offensive operations by a group of fronts or of an offensive by a front or by an army, carried out either within the framework of front operations or independently. In addition, combined operations may be carried out by missile and ground troops and by the navy.

Similar operations (without the use of nuclear/missile weapons) were carried out during the Second World War. Now, however, they will be of an entirely different character.

In the first place, for the performance of the tasks with which they are confronted in operations, ground troops now have at their disposal, in their missile equipment, the means for the use of high-yield nuclear weapons. This allows them, in the shortest possible amount of time, to inflict overwhelming blows against the enemy's weapons of mass destruction, against his basic groupings in the entire depth of their deployment, which can lead to the disorganization of the opponent's troops and deprive them of the ability to put up any serious resistance.

These blows can deprive the enemy of his missile installations, of the aircraft at his airfields, destroy his supplies of nuclear and missile weapons, put the airfields themselves out of commission, annihilate the basic groupings of the enemy's ground troops, and disrupt maneuver and control in a theater of military operations. In addition, this weapon makes it possible not only to inflict losses upon the troops of the enemy, but to destroy them completely, or at least to subject them to such strikes that they will lose their combat effectiveness completely.

In the second place, possessing weapons of mass destruction, ground troops will be in a position to crush the enemy's reserves in their mobilization deployment or buildup areas, preventing them from approaching the battlefield. This situation imposes entirely new conditions for combat with the reserves, and poses the question of the repulse of the counterstrikes and counterattacks of the enemy in a new form.

It seems that in future battles counterstrikes may be ruled out entirely, if the attacking force is able to organize the reconnaissance and destruction of the enemy's reserves correctly.

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In the third place, the defensive maneuver of bringing up replacements and materiel to the field of battle can be prevented from the very outset of combat operations.

In the fourth place, the first nuclear/missile strike can, practically speaking, knock out of commission the basic elements in the enemy's system of troop control, which makes the unified and firm direction of the troops impossible.

In performing an offensive operation, a front must, above all, exploit to the maximum the results of a previously executed strategic nuclear/missile operation, as well as the results of their own nuclear/missile strikes. Thus, the goal of an offensive operation by a front must be the quick seizure of the key positions on the enemy territory so that he has no opportunity to recover from the blow and to carry out substantial counteraction. The most important task of the troops of the front will be the annihilation of those groupings of troops and weapons of mass destruction which have survived the nuclear/missile strike or have retained their combat effectiveness.

The depth of front operations in the recent past was primarily determined by the front's ability to suppress the enemy with a large degree of consistency in the given depth, by the depth of the operational formation of the enemy, by the permissible elongation of the rear areas (rast'yazhka tylov), by the lag in the basing of airfields, and by the degree of effort and exhaustion which the troops were permitted to sustain. For the successive execution of intermediate tasks the front was allotted definite boundaries for the immediate and follow-up missions. Within the framework of a front operation several successive offensive operations by armies were carried out.

The most important form of operation was the encirclement of the basic grouping of the enemy and his subsequent annihilation. This was done in order not to give the enemy a chance to withdraw his grouping to the rear area, put it in order, reinforce it with reserves, and to organize further operations, i.e., to make it impossible for him to escape destruction or annihilation. The most important phase of the operation was breaking through the enemy's defense.

How do these questions appear in modern operations? Since modern weapons permit a consistent degree of annihilation (and not just suppression) of the groupings of the enemy in the entire depth

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of his deployment, the offensive must encompass the entire depth at once. For this purpose, the mobile groupings of the front must follow the nuclear/missile strikes and proceed in the most advantageous directions into the depth of the enemy's deployment to chosen objectives or to selected areas. Landings of airborne troops must be made immediately to capture objectives located deep in the interior, and in a coastal area amphibious landings must take place. Part of the troops must be moved by air. In such a situation combat focal points will form in the entire depth of the operational direction along which the offensive operation is being carried out. Only in this case can the results of nuclear/missile strikes be exploited effectively and in good time.

From this, it seems to us that the principles for planning a front offensive operation which we accept at present are outdated and no longer correspond to modern demands.

The division of the overall task of a front into immediate and follow-up territorial categories, to be carried out in sequence, does not permit the fullest and most effective exploitation of the capabilities of today's new means of combat. In planning an operation, it would appear to be more expedient to envisage two goals -- the immediate and the final goal of the operation.

The immediate goal of a front offensive operation should be the destruction by nuclear/missile weapons (and other weapons of mass destruction) of the enemy's weapons of mass destruction, the annihilation of the basic groupings of his troops, the destruction of his communication lines and radiotechnical systems, disruption of his government and military controls, the liquidation of his supplies of materiel, and the disorganization of the population, i.e., the liquidation of the enemy's ability for organized resistance.

The final goal of the operation must be the capture of key positions or vitally important areas on the enemy's territory, i.e., the occupation of his territory.

In order to reach these goals the main operational problems for resolution by the commander of the front must be; to define the objectives whose destruction by nuclear/missile weapons should deprive the enemy of the capability to resist or counterattack and to determine the yield, types, means, timing, and method of these strikes. The resolution of these problems will in fact also resolve the main strike in the operation.

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After this, the commander of the troops of the front should determine the areas or objectives which must be captured by ground or airborne troops, or by troops carried by aircraft and helicopters, or, in a coastal area, by amphibious landing forces, in order to envelop the entire depth of the enemy's territory in the shortest possible time. He must determine the initial (iskhodnyy) grouping of the ground troops and the direction of movement of the mobile groupings for the capture of selected areas or objectives, and for the annihilation of surviving groupings of enemy troops, or of those which retain their combat effectiveness. Further, he must coordinate the timing and the tasks to be performed by all arms of troops, and resolve all the remaining questions connected with the preparation, organization, and execution of the offensive operation.

In this connection we must bear in mind that there is no longer any need to establish solid groupings of troops along a narrow front, as was the case in the past, when a front was forced to do this in order to penetrate the enemy's defense, since it is unthinkable that the enemy, under modern conditions, will establish any harmonious (stroyyny) system of defense with the continuous front and boundary lines typical of the last war. Supposing that such an attempt were to be made, it would lead to the annihilation of the defenses by nuclear weapons, and the entire front would in any case be destroyed.

On the whole, however, there will be no continuous fronts, and consequently the penetration of the enemy's defenses on an operational scale has already passed into history. It is possible that in isolated cases there will be a penetration of the enemy's defenses, but this can happen only in a tactical sense.

Proceeding from what has been said above, it is also necessary to review the matter of army offensive operations. It seems to us that there is no need for the combined-arms and tank armies operating within the composition of a front to execute several army operations in the framework of an offensive by the front. The tank army must penetrate to the entire depth of the front operation, and occupy that part of the opponent's territory which is farthest from the line of departure. The combined-arms armies should be given the task of operations throughout the depth of the front operation, or be assigned to occupy a specific portion of territory within the boundaries of the front operation. Airborne and amphibious landing forces, as well as troops being moved by air, must also occupy specific centers or areas in the interior of the enemy's territory.

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The tempo of the operation is a different matter. Measuring the tempo of a modern offensive operation by the daily advance of the ground troops is senseless, in our opinion, because this will not be in accordance with the decisive conduct of the operation, and will not allow the timely and effective exploitation of the results of the strikes of nuclear/missile weapons in the entire depth of the operation. The duration and procedure of conducting the operation -- these are the main issues in the calculations, rather than the tempo, in its former meaning. A battle will split into separate focal points of combat, dispersed over a large area, and therefore the planned advance of a mass of ground troops as a continuous front is unthinkable.

The most important and perhaps the most complicated element of modern offensive operations will be, it would seem, the preparation of the operation. It will include an entire set of complicated measures, large in scope, and labor-consuming, which will need a definite, and probably lengthy, period of time. Therefore, in studying modern operations, our operational art must pay special attention to the problems of the detailed preparation of an operation, because its successful execution and the results obtained will depend entirely upon its preparation. Hence, in our view, a modern offensive operation should consist of two phases; the preparatory phase and the phase of execution of the operation. These periods must be determined by the General Headquarters (Stavka) of the Supreme High Command, in close coordination with the strategic nuclear/missile operation being prepared, in order to coordinate and unite the efforts of the forces and means of those participating in the nuclear/missile strategic operation, and of the ground troops operating in one or another strategic direction. In addition, it appears that the nuclear/missile means of fronts will often be detailed for participation in and execution of a nuclear/missile strategic operation being carried out by the General Headquarters with the forces of missile troops of strategic designation.

It is plain that the preparation of such an operation is a complicated and crucial process which should start at the moment the front receives an assignment to carry out an offensive operation and end at the moment the signal is given to deliver the nuclear/missile strike. This phase will probable take longer than the actual phase of execution of the operation.

The phase of execution of the operation should begin at the moment the signal is given to begin the nuclear/missile strike, and end at

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the moment the final goal of the operation is reached. Now, when nuclear/missile weapons have become the basic means of destruction of the enemy and the decisive factor in achieving victory over him, it would be incorrect, to say the least, to call the beginning of the activities of the ground troops the beginning of the operation, because the start of artillery preparation, or the shift to the offensive of the ground groupings, does not represent the main phase of the operation; these activities will be of a subordinate nature in comparison with the operations of the missile troops by whom the destructive missile strikes will be inflicted on the enemy.

The first operations in a future war will be of a decisive nature, and the ultimate outcome of the war will probably depend on their successful execution. Therefore, the primary and urgent [one or two words missing]--of military thinking is the most thorough elaboration and the theoretical solution of all the problems connected with their preparation and execution.

The Materiel and Technical Support of Modern Offensive Operations.  
The advance of ground troops in an operation will undoubtedly be carried out under difficult circumstances. Supply bases, depots, communication lines, and other targets in the rear area may be subjected to heavy nuclear strikes by the enemy; the operation of railroads may be disrupted and delivery of materiel and technical supplies by air may be impeded. Thus, one can not count upon being able to supply troops with materiel according to plan during an operation which has already started. In this connection, both missile troops and ground groupings must have all the necessary materiel supplies at their disposal before the start of combat operations. These supplies must be dispersed, well concealed, and camouflaged, in areas which would be convenient, and from which issue to the troops at any time can be ensured. As much of this material should be stockpiled before the start of the operation as would be needed to carry the entire operation through to its ultimate goal. In addition, provision must be made for a specific reserve of these supplies, also concentrated in convenient areas, from which they could be delivered to the troops by motor transport and by helicopter. Fuel should be supplied mainly by pipeline in order not to burden other, more vulnerable, means of transport with its delivery.

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